

REMARKS

The application has been reviewed in light of the final Office Action dated April 22, 2005. Claims 1-16 are pending. By this Amendment, claim 16 has been canceled, and claim 1 has been amended to clarify the claimed invention to include the features formerly recited in claim 16, now canceled. Applicant submits that no new matter and no new issues are introduced by this Amendment. Accordingly, claims 1-15 are presented for reconsideration, with claims 1, 6-8 and 12 being in independent form.

Claims 1, 3-8, 10-12 and 14-16 were rejected under 35 U.S.C. §103(a) as allegedly anticipated by U.S. Patent No. 4,656,318 to Noyes in view of U.S. Patent No. 5,910,978 to Maytal et al. Claims 2, 9 and 13 were rejected under 35 U.S.C. §103(a) as purportedly unpatentable over Noyes in view of Maytal and further in view of U.S. Patent No. 6,445,733 to Zuranski et al.

Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits that independent claims 1, 6-8 and 12 are patentable over the cited art, for at least the following reasons.

The present application is directed to communication terminals (such as facsimile apparatuses and the like) which are connected to an analog communication network and provided with means for electrical isolation between internal circuitry and the network, in order to guard against damage to the internal circuitry caused by assorted factors. However, the provision of the electrical isolation circuitry may introduce power consumption concerns.

The present application describes communication terminals which are provided with power saving features which are integrally provided along with electrical isolation features. More specifically, in a power-saving state, operation of a modulation and demodulation processing section of a digital signal processing circuit is suspended, while a network control signal processing section of the digital signal processing circuit remains in operation and powered. For example, independent claim 1 is directed to such a communication terminal apparatus.

Noyes, as understood by Applicant, is directed to a modem apparatus which is connected to a host computer. The modem apparatus of Noyes is configured to have a conventional modem device structure.

The modem apparatus of Noyes has some power saving features. In particular, Noyes discloses a ring detector which draws no power while monitoring for incoming calls.

However, Noyes, as acknowledged in the Office Action, does not disclose or suggest the improved power saving features of the claimed invention wherein a network control signal processing section of a digital signal processing circuit remains in operation and powered while operation of a modulation and demodulation processing section of the digital signal processing circuit is suspended in a power-saving state, as provided by the claimed invention of claim 1.

Maytal was cited in the Office Action as disclosing a digital signal processing unit which performs modulation/demodulation and incoming call detection.

However, Maytal (like Noyes) does not disclose or suggest a communication terminal

apparatus wherein a network control signal processing section of a digital signal processing circuit remains in operation and powered, while operation of a modulation and demodulation processing section of the digital signal processing circuit is suspended in a power-saving state, as provided by the claimed invention of claim 1.

It is contended in the Office Action that if Noyes and Maytal are combined, the ring detector and modulator/demodulator of Noyes would be replaced by the digital signal processor of Maytal, and in the modified device the network control signal processing section of the digital signal processor would remain powered while the remainder of the modem is in a power saving state.

Applicant disagrees.

Contrary to the contention in the Office Action, if Noyes and Maytal are combined, the combination would nevertheless fail to disclose or suggest a communication terminal apparatus wherein a network control signal processing section of a digital signal processing circuit remains in operation and powered, while operation of a modulation and demodulation processing section of the digital signal processing circuit is suspended in a power-saving state, as provided by the claimed invention of claim 1.

It should be noted that Noyes states as follows at column 4, lines 60-62:

“It is important to note that ring detector 19 draws no power while monitoring for incoming calls or to provide the incoming call indication signal...”

As if this is not enough emphasis, Noyes states as follows in its Summary at lines 20-

"The present invention provides a stand alone modem which can detect an incoming call and provide an indication of the incoming call to a host computer while the power to the modem is turned off. This power-off ring detection capability is provided by a modem which incorporates: a switchable power supply that can be turned on and off by a remote input (or inputs) from the host computer; a ring detection circuit that can monitor for incoming calls and notify the host computer through an "open drain" output without using power ..."

Thus, contrary to the contention in the Office Action, one skilled in the art following the teachings of Noyes would not have been motivated to replace the ring detector of Noyes. Further, even if the skilled artisan experimented with the modem of Noyes by replacing the ring detector with a digital signal processing circuit, the skilled artisan would have ensured that the teachings of Noyes were followed such that the network control signal section remains active without using power, while the modem is in power saving state.

In contrast, in the claimed invention, the network control signal processing section of the DSP circuit remains powered so as to obtain signal detection accuracy, even when the communication terminal is in a power saving state.

Zuranski, as understood by Applicant, relates to a digital subscriber line communication system. According to the Office Action, Zuranski purportedly discloses placing a modem into a low power state by reducing or halting clock signals within the modem.

Applicant does not find teaching or suggestion in the cited art, however, of a communication terminal apparatus wherein a network control signal processing section of a digital signal processing circuit remains in operation and powered, while operation of a modulation and demodulation processing section of the digital signal processing circuit is

suspended in a power-saving state, as provided by the claimed invention of claim 1.

Independent claims 6-8 and 12 are believed to be patentable over the cited art for similar reasons.

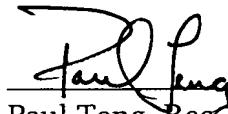
Accordingly, for at least the above-stated reasons, Applicant respectfully submits that independent claims 1, 6-8 and 12, and the claims depending therefrom, are patentable over the cited art.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Office is hereby authorized to charge any fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Allowance of this application is respectfully requested.

Respectfully submitted,

  
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